Amendments to the Specification

Please replace paragraph number [0013], with the following rewritten paragraph:

--**[0013]** In the accompanying drawings, there is shown a self-correcting wireless inertial navigation system which includes a base station 10 and a mobile unit 12. The mobile unit 12 [[in]] includes an accelerometer 14, which in the present embodiment of the invention is in implemented as an ADXL202 two-axis accelerometer manufactured by Analog Devices Inc., a microcontroller 16, implemented as a PIC16 F876-20 microcontroller manufactured by Microchip Corp., and a transmitter 18 in the form of a TXM-900-HP II receiver board having an antenna 20 for broadcasting a measurement signal in the form of an RF signal.--

Please replace paragraph number [0014], with the following rewritten paragraph:

--**[0014]** The base station 10 has three antennas 22a, 22b and 22c for receiving the measurement signal. ~~This~~ The antenna 22a is connected to an RF receiver 24, implemented as an RXM-900-HP-II receiver board on an MDEV-900-HP-II evaluation board manufactured by Linx Technologies Inc. The two antennas 22b and 22c are connected to an interferometer/phase detector 26 in the form of an AD8302 RF/IF Gain and Phase Detector manufactured by Analog Devices Inc. and the antenna 22a is also connected to the interferometer/phase detector 26. The receiver 24 and the interferometer/phase detector 26 are connected to a PIC16F876-20 microcontroller 28, which outputs through a MAX233 serial driver 30, manufactured by Maxim Integrated Products, to a Dell Optiflex GXPro Dual 200MHz Pentium Pro personal computer 32. A monitor 34 is provided for displaying the output of the personal computer 32.--

Please replace paragraph number [0024], with the following rewritten paragraph:

--**[0024]** The correction of the inertial measurement by phase difference triangulation measurement is effected in accordance with the following equations, which show the manner of calculating the position of the mobile unit 12 based on the two receiving antennas 22b and 22c, both at a distance r from the origin, i.e. from a point half way between the antennas 22b and 22c. In the following calculation, λ is the carrier wavelength, ϕ is the measured phase angle[[,]]; ~~and~~ d_1 and d_2 are the respective distances from the transmitter to each receiving antenna; j and k are wavelength multipliers (0, 1, 2, 3...) which specify the number of full wavelengths to the transmitter, m and n are the remainder distance measurements that correspond to the phase shift, and q is a correction factor applied to give the measurement accuracy over the entire wavelength.

$$d_1 = k\lambda + m$$
$$d_2 = j\lambda + n$$

$$d_1 - d_2 = (k - j)\lambda + (m - n)$$

$$\pm\left(\frac{m-n}{\lambda}\right) = \frac{\phi}{\pi} \pm \frac{q}{2}$$--